

IN THE CLAIMS:

Claims 1-14 (cancelled).

15 (currently amended). Apparatus for producing electronic video signals representative of color images of a scene, comprising:

a sensor having a color filter thereover;

a lens system that focuses light from said image onto said color filter and sensor; and

means for producing electronic video signals from the output of said sensor;

said sensor comprising a sensor array having alternate lines offset by half a pixel spacing, and diagonally coupled pixels on successive lines, and said color filter having repeating R, G, and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally, and B pixels are arranged diagonally;

said means for producing electronic video signals from the output of said sensor including a first register to which are connected solely R pixels, diagonally offset in alternating directions, for successive vertically adjacent lines of a group of lines, a second register to which are connected solely G pixels, diagonally offset in alternating directions, for successive vertically adjacent lines of said group of lines, and a third register to which are connected solely B pixels, diagonally offset in alternating directions, for successive vertically adjacent lines of said group of lines.

16 (previously presented). Apparatus as defined by claim 15, further comprising a low pass prefilter interposed before said color filter.

17 (previously presented). Apparatus as defined by claim 15, wherein said lens system is a motion picture film camera type of lens system.

18 (previously presented). Apparatus as defined by claim 16, wherein said lens system is a motion picture film camera type of lens system.

Claims 19-21 (cancelled).